

# DATA AND INNOVATION: HOW CDC SUPPORTS COUNTRIES IN HIV CASE-FINDING

## OVERVIEW

Despite the significant scale-up of HIV Testing Services (HTS), 47 percent of people living with HIV (PLHIV) in resource-limited countries remain unaware of their infection,<sup>1</sup> New global targets aimed at ending the HIV epidemic call for 90 percent of all PLHIV to know their HIV status, 90 percent of all individuals diagnosed with HIV to receive sustained antiretroviral treatment (ART) to treat their infection and reduce their risk of transmitting HIV; and 90 percent of those on ART to have a suppressed viral load by 2020.<sup>2</sup> Accomplishing the first “90 target” in the face of dwindling resources will require countries to: (1) implement a strategic mix of facility- and community-based HIV testing approaches to diagnose new HIV cases and link those with HIV to treatment services, (2) identify innovative approaches to find remaining undiagnosed PLHIV, especially among the hardest to reach populations (i.e., key populations, older men, and adolescents); and (3) implement a quality improvement approach by continuously analyzing program, expenditure, and epidemiologic data to identify programmatic gaps, and utilizing results to improve the quality and effectiveness of HIV testing services.

## CDC'S ROLE

The U.S. Centers for Disease Control and Prevention (CDC) is providing in-person and virtual technical assistance to Ministries of Health and implementing partners in 38 countries and regional programs to reach the first 90 target by evaluating innovative approaches to HIV case finding and linkage to HIV treatment services, expanding evidence-based interventions, and using data for strategic program planning purposes.

Examples of CDC supported activities include:

- **Developing and disseminating standard operating procedures (SOPs) for innovative HIV case-finding approaches:** Several recent evaluations and innovative program models have demonstrated the effectiveness of partner notification services and social network testing in increasing the uptake of HTS and identifying sexual and drug-use partners with undiagnosed infection. In order to help countries operationalize these new approaches, CDC has developed SOPs to facilitate implementation of these effective case finding approaches in resource-limited countries.
- **Evaluating innovative HIV testing interventions:** The Optimizing Prevention and Referrals in the Antenatal Clinic Platform study is an evaluation that aims to increase the number of male partners tested during a woman's pregnancy by offering HIV counseling and testing to couples in antenatal clinics and through home-based services. The evaluation will also assess the acceptability of self-testing as another strategy for increasing the uptake of HIV testing among men.
- **Strengthening the use of HTS data in the field and at headquarters to maximize HIV case-finding:** CDC supported the development of an Excel-based tool known as the Country HTS Planning Support (CHiPS) Tool.

<sup>1</sup> UNAIDS. Global AIDS Update. Geneva: Joint United Nations Programme on HIV/AIDS, 2016. Available at : [http://www.unaids.org/sites/default/files/media\\_asset/global-AIDS-update-2016\\_en.pdf](http://www.unaids.org/sites/default/files/media_asset/global-AIDS-update-2016_en.pdf)

<sup>2</sup> UNAIDS. 90-90-90: An ambitious treatment target to help end the AIDS epidemic. Geneva: Joint United Nations Programme on HIV/AIDS, 2014. Available at: [http://www.unaids.org/sites/default/files/media\\_asset/90-90-90\\_en\\_0.pdf](http://www.unaids.org/sites/default/files/media_asset/90-90-90_en_0.pdf).

**Figure 1:**

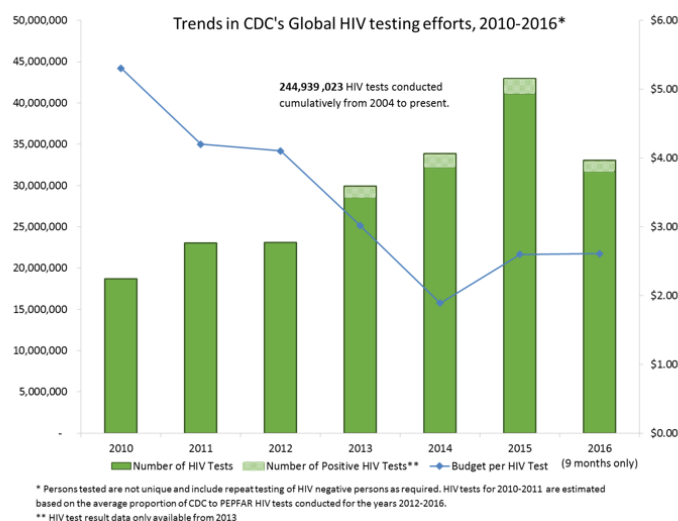


(Figure 1). This tool facilitates rapid analyses of PEPFAR-supported HIV testing services to determine if countries, partners, and sites are: 1) identifying HIV-infected individuals; 2) testing in the right places and targeting the right populations based on the disease burden; and 3) using an appropriate combination of HIV testing approaches efficiently and effectively. U.S. Government staff use this tool to routinely monitor program performance and to assist implementing partners and country teams in formulating evidence-based strategic plans for achieving the first 90 target.

## ACCOMPLISHMENTS/RESULTS

Since 2004, CDC has supported nearly 245 million HIV tests through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) (see Figure 2). The efficiency – defined as the number of new HIV cases identified – of those tests has steadily increased, while the cost per test has steadily decreased as HTS programs have begun to use their data to improve program performance.

**Figure 2:**



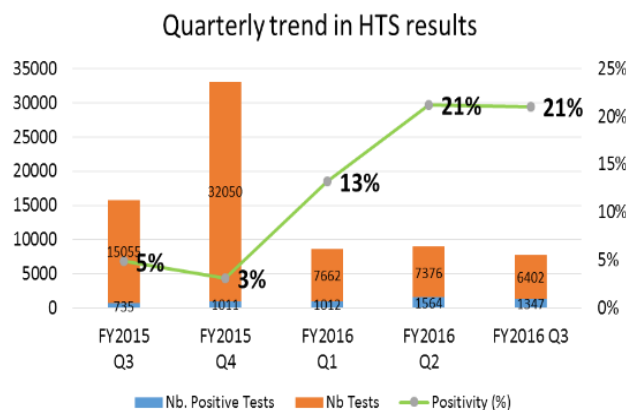
In 2010, CDC determined that few HTS programs were using their monitoring and evaluation data to strategically plan their programs. To address this gap, CDC, with support from the University of California at San Francisco (UCSF), developed an Excel-based analytics tool to assist country teams in analyzing their routine program data. CDC and UCSF then conducted 10 HIV testing data use workshops in five countries to build staff capacity at U.S. Government agencies, Ministries of Health, and implementing partners to use program and surveillance data in

strategic planning for HIV testing programs.<sup>3</sup> Each workshop culminated with the development of an action plan to improve program alignment to populations and geographic areas with a disproportionate burden of undiagnosed HIV.

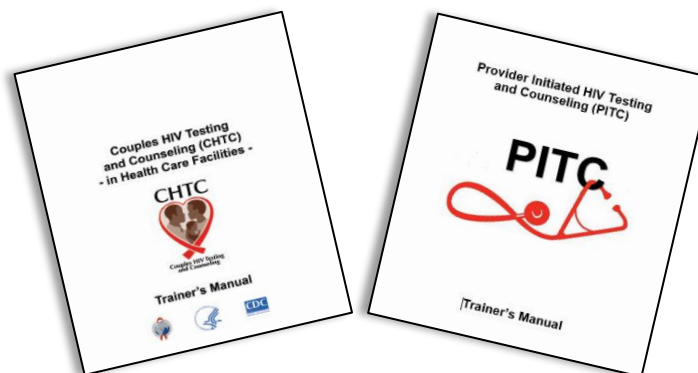
Building on these past achievements, CDC continues to help countries analyze their HTS program data – including information from required PEPFAR indicators, expenditure analysis, quality assurance monitoring, population-based surveys, and other sources – to target PEPFAR resources most effectively, improve the quality of PEPFAR-supported HTS, and maximize PEPFAR's impact. Strategies for providing this assistance include quarterly monitoring calls with all 38 PEPFAR-supported countries and regional programs, as well as developing and disseminating partner management tools.

As countries reach a plateau in the efficiency of their current HTS programs, CDC has supported the adoption of innovative HIV testing strategies, including index case and partner testing services, to help countries reach PLHIV who don't know their status. For example, several nascent and notable index-case testing programs have reached positivity rates of over 20 percent. In Swaziland, an HTS partner used HIV treatment clinic registers to conduct index case-based testing in community settings. The positivity rate of their HTS efforts rose from 3 percent in the last quarter of FY2015 to 21 percent in the 3<sup>rd</sup> quarter of 2016 (Figure 3).

**Figure 3:**



In 2012, CDC completed Project STATUS, a cluster randomized trial conducted in South Africa, Tanzania, and Uganda that identified the most effective model for increasing uptake of HIV testing and identifying previously undiagnosed PLHIV within health facilities' outpatient departments (OPDs). Findings from this multi-country evaluation have been used to help scale up and improve service delivery models for provider-initiated testing and counseling (PITC) in OPDs in other countries. CDC is currently developing screening tools to improve the targeting of testing in facility-based settings and an SOP to further help countries to scale-up targeted testing within OPD settings.



Finally, CDC has developed several curricula on HIV testing to assist countries in operationalizing PITC and testing for couples and key populations. CDC is currently developing a training module for health care workers on how to test children and adolescents for HIV.

<sup>3</sup> HTC Data Use and Strategic Information workshop materials and tools

<http://globalhealthsciences.ucsf.edu/prevention-public-health-group/global-strategic-information-gsi/monitoring-and-evaluation/hiv-testing>

## FUTURE EFFORTS

CDC will continue to collaborate with PEPFAR programs to develop, evaluate, and disseminate best practices for improving HIV case-finding and linking all HIV-positive individuals to HIV treatment services. CDC will also assist country teams in adapting these approaches and SOPs to their local context and in continuing to use their data for quality improvement purposes.

In addition to having HQ testing and counseling experts provide in-person technical assistance to country and regional programs, CDC will also facilitate quarterly technical calls with the 38 country and regional programs to disseminate evidence-based approaches and to provide a forum for countries to share lessons learned about operationalizing innovative case-finding strategies. Lastly, CDC will continue to work with Ministries of Health to update their policies and guidelines to align with international normative guidance and ensure national scale-up of effective case-finding strategies.

## BENEFITS OF OUR WORK

While the United States is close to reaching the first 90 target, 13 percent of PLHIV in the United States are unaware of their infection.<sup>4,5</sup> Continued efforts by domestic and international programs to share lessons learned about effective case-finding strategies will help ensure success in reaching the first 90 target in both domestic and global settings.

<sup>4</sup> CDC. HIV Surveillance Report, Diagnoses of HIV Infection in the United States and Dependent Areas, 2014, Vol. 26; November 2015. HIV diagnosis data are estimates from 50 states, the District of Columbia, and 6 U.S. dependent areas.

<sup>5</sup> CDC. HIV Surveillance Supplemental Report, Monitoring Selected National HIV Prevention and Care Objectives by Using HIV Surveillance Data, Vol. 20, No. 2; July 2015.